



Influenza Antiviral Medications: A Summary for Clinicians

Antiviral medications with activity against influenza viruses are an important second line of defense in the prevention and treatment of influenza.

- Influenza antiviral drugs can be used to **treat** influenza or to **prevent influenza**.
- Two FDA-approved influenza antiviral medications are recommended for use in the United States during the 2007-08 influenza season: **oseltamivir** (Tamiflu®) and **zanamivir** (Relenza®).
- Oseltamivir and zanamivir are chemically related antiviral medications known as neuraminidase inhibitors that have activity against both influenza A and B viruses.

Treatment:

When started within the first **two days** of symptoms, an influenza antiviral medication can reduce illness severity and shorten duration of illness. Limited data suggest that influenza antiviral medications may also prevent serious influenza-related complications (e.g., pneumonia or exacerbation of chronic diseases).

- Influenza antiviral medications should be started **as soon as possible after** symptom onset. These medications have not been shown to be effective if administered more than 48 hours after onset.
- Oseltamivir is approved for treatment of people **1 year of age and older**.
- Zanamivir is approved for treatment of people **7 years of age and older**.
- The recommended duration of treatment with oseltamivir or zanamivir is **5 days**.

Chemoprophylaxis:

Vaccination is the best way to prevent influenza because vaccination can be given well before influenza virus exposures occur, and it provides safe and effective immunity throughout the influenza season. Antiviral medications are **70% to 90%** effective in preventing influenza and are useful adjuncts to vaccination.

- Oseltamivir is licensed for use as chemoprophylaxis in people **1 year of age and older**.
- Zanamivir is licensed for use as chemoprophylaxis in people **5 years of age and older**.
- To be effective as prophylaxis, the drug must be taken each day for the duration of potential exposure to influenza or until immunity after vaccination develops (Antibody development after vaccination takes about **two weeks** in adults and can take longer in children depending on age and vaccination status).

Side Effects and Dosing:

- When considering use of influenza antiviral medications, clinicians must consider the patient's age, weight and renal function; presence of other medical conditions; indications for use (i.e., chemoprophylaxis or therapy); and the potential for interaction with other medications.
- The main side effects for oseltamivir are nausea or vomiting (10%). Rare cases of transient neuropsychiatric events (self-injury or delirium) have been reported during post-marketing surveillance among persons taking oseltamivir, primarily in Japan.
- Zanamivir is not recommended for persons with underlying airways disease (e.g., asthma or chronic obstructive pulmonary diseases).
- For more information on safety, effectiveness and dosing for oseltamivir and zanamivir, visit <http://www.cdc.gov/flu/professionals/antivirals/index.htm> or consult the package inserts.

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Following are examples of how antiviral medications can be used to prevent or treat influenza when influenza activity is present in your community:

- Prevention for people who have been vaccinated for less than two weeks.
- Prevention for unvaccinated people caring for those at high risk (employees of hospitals, clinics, or chronic-care facilities, household members, visiting nurses or volunteers).
- Prevention for people with immune deficiencies or those who might not respond to vaccination (This includes persons infected with HIV or receiving immunosuppressive medications.)
- Prevention for people who cannot receive influenza vaccine due to an egg allergy or other contraindication.
- Treatment of persons with influenza who live with or care for high risk people.
- Treatment of high risk persons with influenza.
- Treatment of anyone ill with influenza for less than 48 hours who wishes to decrease the duration and severity of his/her symptoms.

For more information, visit www.cdc.gov/flu,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

October 23, 2007

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